SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0487-01 SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete Partial

300 Area 304, 303M Bldgs

DATA CHEM LABORATORIES

Cover Page

Report Identification Number: 06I-0487-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303M0 J451
Payroll#: 73513

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
02 Feb 2006	J11399	06I03850	NMAM 7300M	G061601L	G WIPE
02 Feb 2006	J11398-A	06I03851	NMAM 7300M	G061601L	G WIPE
02 Feb 2006	J11390	06I03852	NMAM 7300M	G061601L	G WIPE
02 Feb 2006	J11397	06I03853	NMAM 7300M	G061601L	G WIPE

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Name: Joanna C. Sanchez
Title: Chemist
Date: February 10, 2006

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Case Narrative Page

Report Identification Number:	06I-0487-01
Subcontract Number:	0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist:	Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number:	DCHM
SAF#:	RC-001 / R303M0 J451
Payroll#:	73513

General Set Information: There are 4 samples in set 06I-0482-01, 4 samples in set 06I-0483-01, 4 samples in set 06I-0484-01, 4 samples in set 06I-0485-01, 4 samples in set 06I-0486-01, 4 samples in set 06I-0487-01, 11 samples in set 06I-0513-01 and 22 samples in set 06I-0514-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None.

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Case Narrative Page

Laboratory Control Sample and Duplicate Analysis: Three Laboratory Control Samples (LCSs) and three Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Six samples in this batch were replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination (µg/L)

B = Concentration factor from sample preparation

$$= \frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$$

C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None

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DATA CHEM LABORATORIES

Report Page

Report Identification Number: 06I-0487-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303M0 J451
Payroll#: 73513

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J11399	06I03850	08 Feb 2006	<0.01	U	<0.08	U	<2.	U
J11398-A	06I03851	08 Feb 2006	<0.01	U	<0.08	U	<2.	U
J11390	06I03852	08 Feb 2006	<0.01	U	<0.08	U	<2.	U
J11397	06I03853	09 Feb 2006	<0.01	U	<0.08	U	<2.	U
Limit of Detection (LOD)			0.01		0.08		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

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QC Summary Page

Report Identification Number: 06I-0487-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 / R303M0 J451
Payroll#: 73513

Batch ID: G061601L

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241024-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241024-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-241024-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241024-1	LCS	Beryllium	µg/sample	11.3	NA	10.0	113.	NA
QC-241024-1	LCS	Cadmium	µg/sample	33.5	NA	30.0	112.	NA
QC-241024-1	LCS	Lead	µg/sample	108.	NA	100.	108.	NA
QD-241024-1	LCSD	Beryllium	µg/sample	11.2	11.3	10.0	112.	0.312
QD-241024-1	LCSD	Cadmium	µg/sample	33.2	33.5	30.0	111.	0.699
QD-241024-1	LCSD	Lead	µg/sample	106.	108.	100.	106.	1.81

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

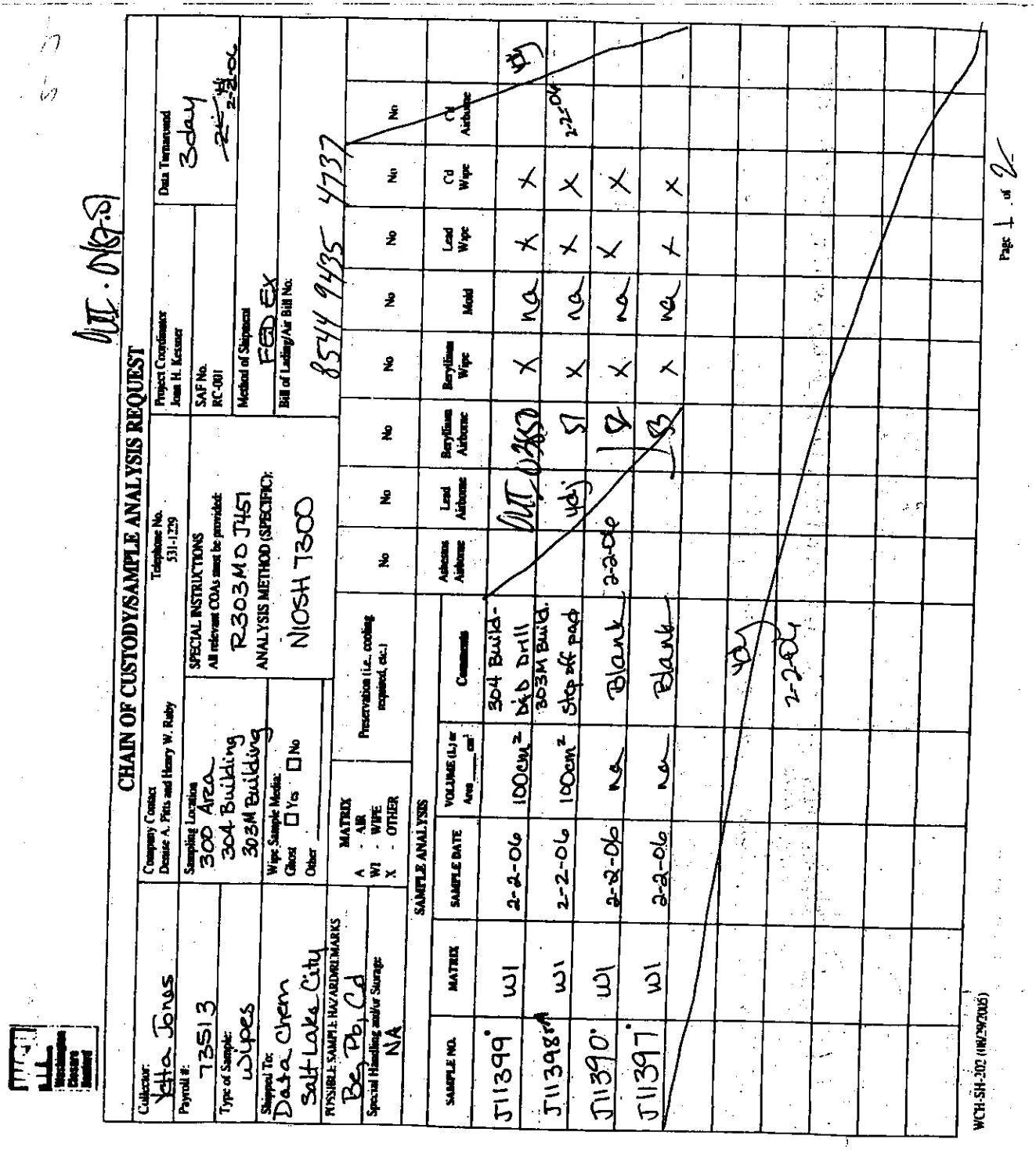
NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

DATA CHEM LABORATORIES

COC Page



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Kelly Jones
Company Contact: Denise A. Pitts and Henry W. Ruby
Telephone No.: 531-1259
Project Coordinator: Joan H. Kessner
Data Turnaround: 3day 2-2-06
Payroll #: 73513
Sampling Location: 300 Area 304 Building 303M Building
SPECIAL INSTRUCTIONS: All relevant COAs must be provided: R303M0 J7451
SAF No.: RC-001
Method of Shipment: FED EX
Type of Sample: Wipes
Shipped To: Data Chem Salt Lake City
Wipe Sample Media: Client ☐ Yes ☐ No Other
ANALYSIS METHOD (SPECIFIC): NIOSH 7300
Bill of Lading/Air Bill No.: 8544 9435 4737
PYROPHORIC SAMPLE HAZARD REMARKS: Be, Pb, Cd
Special Handling and/or Storage: NA
MATRIX: A - AIR, WI - WIPE, X - OTHER
Preservation (i.e. cooling required, etc.)

SAMPLE ANALYSIS

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
					No	No	No	No	No	No	No	No
J11399	WI	2-2-06	100cm²	304 Build-bld Drill		MT 0450	X	na	X	X		
J11398	WI	2-2-06	100cm²	303M Build. Step off pad		wbj 51	X	na	X	X	2-2-06	
J11390	WI	2-2-06	na	Blank	2-2-06	19	X	na	X	X		
J11397	WI	2-2-06	na	Blank		13	X	na	X	X		

WCH-SH-2001 (10/26/2005)

Page 1 of 2

DATA CHEM LABORATORIES

COC Page

Enter on line below the first Sample Number from Page One:

JI1399

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Signed	DATE / TIME	Received By/Signed	DATE / TIME
[signature] Yetta D. Jones	2-2-06 1500	3746 Build, Rm 16, locked cabinet	2-2-06 1500
Locked cabinet 3746 bldg. Rm 16 / [signature] Golden Malhan	02-06-06 / 1500	RZ Steffler R.J. Steffler	2-6-06 / 1500
RZ Steffler R.J. Steffler	WCH 2-6-06 / 1600	Fed Ex	
FedEx		Meredith Edward	7Feb06/935
[signature]	7Feb06/935		

LABORATORY SECTION	Received By	Title	DATE / TIME
	Meredith Edward		7Feb06/935

REVIEWED BY: ______________________ DATE: ______________

PRINT/SIGN NAME

WCH-SH-202 (08/29/2005)

Page 2 of 2

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Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Yetta Jones	Company Contact: Denise A. Pitts and Henry W. Ruby	Telephone No.: 531-1229	Project Coordinator: Joan H. Kessner	Data Turnaround: 3day 4dy 2-2-06
Payroll #: 73513	Sampling Location: 300 Area 304 Building 303M Building	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303M0J451	SAF No. RC-001	
Type of Sample: wipes	Wipe Sample Media: Ghost ☐ Yes ☐ No Other ____	ANALYSIS METHOD (SPECIFIC): NIOSH 7300	Method of Shipment: FED EX	
Shipped To: Data Chem Salt Lake City			Bill of Lading/Air Bill No.: 8544 9435 4737	
POSSIBLE SAMPLE HAZARD/REMARKS: Be, Pb, Cd	MATRIX: A - AIR; WI - WIPE; X - OTHER	Preservation (i.e., cooling required, etc.)		
Special Handling and/or Storage: NA				

SAMPLE ANALYSIS

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	
					No	No	No	No	No	No	No	No	
J11399	WI	2-2-06	100cm²	304 Build-D&D Drill				X	na	X	X		4dy
J11398	WI	2-2-06	100cm²	303M Build. Step off pad		4dy		X	na	X	X	2-2-06	
J11390	WI	2-2-06	na	Blank	2-2-06			X	na	X	X		
J11397	WI	2-2-06	na	Blank				X	na	X	X		
				4dy 2-2-06									

COPY

FIELD SAMPLE COPY

Enter on line below the first Sample Number from Page One:

J11399

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Yetta D. Jones	2-2-06 1500	3746 Build, Rm 116, locked cabinet	2-2-06 1500
Locked cabinet 3746 bldg. Rm#116			
Cynthia Mack Goldie Mahan	02-06-06 / 1500	RZ Steffler R.J. Steffler	2-6-06 / 1500
RZ Steffler R.J. Steffler WCH	2-6-06 / 1600	Fed Ex	

LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME